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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/068,103	02/05/2002	Dan E. Fischer	7678.569	5744

22913 7590 06/02/2005

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EXAMINER

WILSON, JOHN J

ART UNIT	PAPER NUMBER
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3732

DATE MAILED: 06/02/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

6

Office Action Summary	Application No.		Applicant(s)	
	10/068,103		FISCHER ET AL.	
	Examiner		Art Unit	
	John J. Wilson		3732	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 April 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2,4-7,9-13,40-42,44 and 46 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2,4-7,9-13,40-42,44 and 46 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>2/23/05</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 2, 4-7, 9-18, 22—28, 30, 31, 40-42, 44 and 46 are rejected under 35

U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The limitation of “a ratio of the length to the diameter of at least approximately 10:1” is not supported by the disclosure as originally filed, and therefore, is improper new matter. The drawings have not been disclosed as being drawn to scale, and therefore, can not be used to support this limitation, MPEP 2124.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 19-21 and 29 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In claim 19, lines 5, “the holding tray” lacks proper antecedent basis within the claims. In claim 20, line 2, is “holding tray” the same as claimed in claim 19? In claim 21, line 2, it is noted that claim 19 has already claimed the limitation of a “tapered” body.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 15-21, 25-30, 40-42 and 44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bailey et al (5013240) in view of Kennedy et al (5634711), Osterwalder et al (6102696) and Doty (4952146). Bailey shows a system that includes a tray 27 having a recess at 85 for receiving a light curing device 30 having a body as suggested in Fig. 2 that is sized to be received and held in an upright fashion in the holding tray, the holding tray also showing other dental instruments therein. While 30 in Fig. 2 of Bailey suggests a body shape, an actual elongate body shape is not shown. Kennedy shows a light curing device 10 having an elongated body. It would be obvious to one of ordinary skill in the art to modify Bailey to include a body shape of an elongated body as shown by Kennedy, and suggested by Bailey, in order to make use of known body shapes for better delivering light to the desired area and for better storing in a tray. Bailey further teaches a light source at the end of the tool in the form of a light wand, however, does not show a light source that generates light and that is at a normal orientation to the body. Kennedy teaches using LEDs at a distal end of the body and an outside power source where the power is delivered to the body by a power cord 20. Osterwalder also teaches that it is known in the art to use light generating means in the form of LEDs at the distal end and oriented normal to the axis of the body

as shown. It would be obvious to one of ordinary skill in the art to modify Bailey to include using a light generating source near the distal end of the body along with the necessary power source and cord as shown by Kennedy in order to make use of art known ways of delivering light for curing in the mouth of a patient, and further obvious to modify the above combination to include orienting the light source at the distal end and oriented normal thereto in order to better deliver the light to a desired location in a patient's mouth. The obvious elongated body of the prior art is inherently capable of being rotated within a patient's mouth. In view of the light tool 30 sitting in a tray holder as shown by Bailey in Fig. 2, and the showing of a tapered holder at 85, it is held that Bailey teaches using a tool having a configuration in size and shape that securely fits into a recess of a holding tray, however, does not show a body that is tapered at the proximal end. Doty shows that it is known to provide the proximal end of dental hand pieces with a taper that matches the size and shape of the holder, see Fig. 1. It would be obvious to one of ordinary skill in the art to modify the above combination to include a tapered end as shown by Doty in order to better mount the hand piece when not in use. The specific ratio of length to diameter is an obvious matter of choice in the specific size used to one of ordinary skill in the art. As to claims 18 and 40, see lens 136 of Kennedy. As to claims 25-27, the size and shape of the body with respect to other inferentially claimed hand pieces is an obvious matter of choice I the hand pieces that the body is intended to be used with. As to claim 28, Kennedy teaches using a heat sink 26. As to claim 21, Bailey shows a slot that can function to allow a power cord to pass through. As to claim 30, Bailey shows at least one additional hand piece.

Claim 31 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bailey et al (5013240) in view of Kennedy et al (5634711), Osterwalder et al (6102696) and Doty (4952146) as applied to claim 30 above, and further in view of Runnells et al (4179813). The above combination does not show using removable holders. Runnells shows removable holders 21, column 5, lines 15-19. It would be obvious to one of ordinary skill in the art to modify the above combination to include removable holders as shown by Runnells in order to provide greater convenience.

Claims 2, 4, 22-24 and 46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Melikechi et al (6318996) in view of Doty (4952146). Melikechi shows a hand held device having means 12 for defining a generally elongated body that extends substantially along a single central axis as shown, means 14 for generating and emitting radiant energy for curing and a power cord 22. Melikechi does not show means disposed at a proximal end for providing a fit that adapts the dental device in a recess of a tray. Doty shows that it is known to provide the proximal end of a dental hand piece with a taper that fit the recess of the holder, see Fig. 1. It would be obvious to one of ordinary skill in the art to modify Melikechi to include a tapered end as shown by Doty in order to better mount the hand piece when not in use. The shown hand piece of Melikechi is inherently capable of being rotated in use in a patient's mouth. The specific ratio of length to diameter is an obvious matter of choice in the specific size used to one of ordinary skill in the art. As to claims 22-24, the size and shape of the

body with respect to other inferentially claimed hand pieces is an obvious matter of choice I the hand pieces that the body is intended to be used with.

Claims 5 and 9-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Melikechi et al (6318996) in view of Doty (4952146) as applied to claims 2 and 46 above, and further in view of Kennedy et al (5634711). The above combination does not show locating controls on the body of the hand piece. Kennedy shows locating controls 42, 44 on the hand piece. It would be obvious to one of ordinary skill in the art to modify the above combination to include locating the controls on the hand piece as shown by Kennedy in order to allow for more convenient use of the controls. As to claim 9, Melikechi does not show a lens. Kennedy teaches using a lens 136, Fig. 7, column 4, lines 35-42. It would be obvious to one of ordinary skill in the art to modify the above combination to include the use of a lens as shown by Kennedy in order to better focus the light on the desired area. As to claim 10, Melikechi further teaches that the LEDs may be used in place of a filter. If one of ordinary skill in the art desired to further filter the light from an LED source, to do so would be an obvious matter of choice in a well known way of obtaining the specific desired spectrum of light. As to claim 12, Kennedy shows a heat sink 26. It would be obvious to one of ordinary skill in the art to modify the above combination to include the use of a heat sink as shown by Kennedy in order to dissipate heat.

Claims 6 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Melikechi et al (6318996) in view of Doty (4952146) and Kennedy et al (5634711) as applied to claim 5 above, and further in view of Sullivan (5975895). The above combination does not show controls for activating the light source for a duration of time and for altering the time. Sullivan shows a control 28 that activates a timer and includes a control for altering the timer, column 6, lines 66-67, and column 7, lines 1-12. It would be obvious to one of ordinary skill in the art to modify the above combination to include controls as shown by Sullivan in order to better deliver the desired amount of light to the work site.

Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Melikechi et al (6318996) in view of Doty (4952146) and Kennedy et al (5634711) as applied to claim 12 above, and further in view of Verderber (5457611). While Kennedy shows a heat sink 26, the above combination does not show the type of material used for the heat sink. Verderber teaches using aluminum for a heat sink 30, column 3, lines 29-35. It would be obvious to one of ordinary skill in the art to modify the above combination to include using an aluminum heat sink as shown by Verderber in order to make use of known materials to better dissipate heat.

Response to Arguments

Applicant's arguments filed April 12, 2005 have been fully considered but they are not persuasive. While the disclosure talks about the size, it does not disclose the

specific ratio as now being claimed, and as pointed out above, the drawings can to be used to support a size limitation unless they have been disclosed as being to scale, MPEP 2124.

Inventorship

In view of the papers filed February 2, 2005, it has been found that this nonprovisional application, as filed, through error and without deceptive intent, improperly set forth the inventorship, and accordingly, this application has been corrected in compliance with 37 CFR 1.48(a). The inventorship of this application has been changed by adding the inventor Neil T. Jessop.

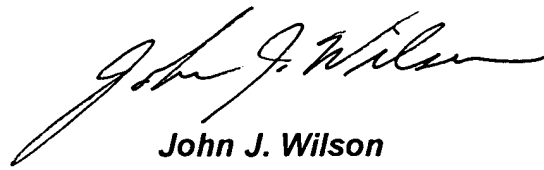
The application will be forwarded to the Office of Initial Patent Examination (OIPE) for issuance of a corrected filing receipt, and correction of Office records to reflect the inventorship as corrected.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John J. Wilson whose telephone number is 571-272-4722). The examiner can normally be reached on Monday through Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kevin P. Shaver, can be reached at 571-272-4720. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



John J. Wilson
Primary Examiner
Art Unit 3732

jjw
May 21, 2005